

TECHNICAL SUMMARY
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT
LPTV STATION K31PZ-D
CLARKSVILLE, ARKANSAS
CHANNEL 31 2.0 KW (DA)

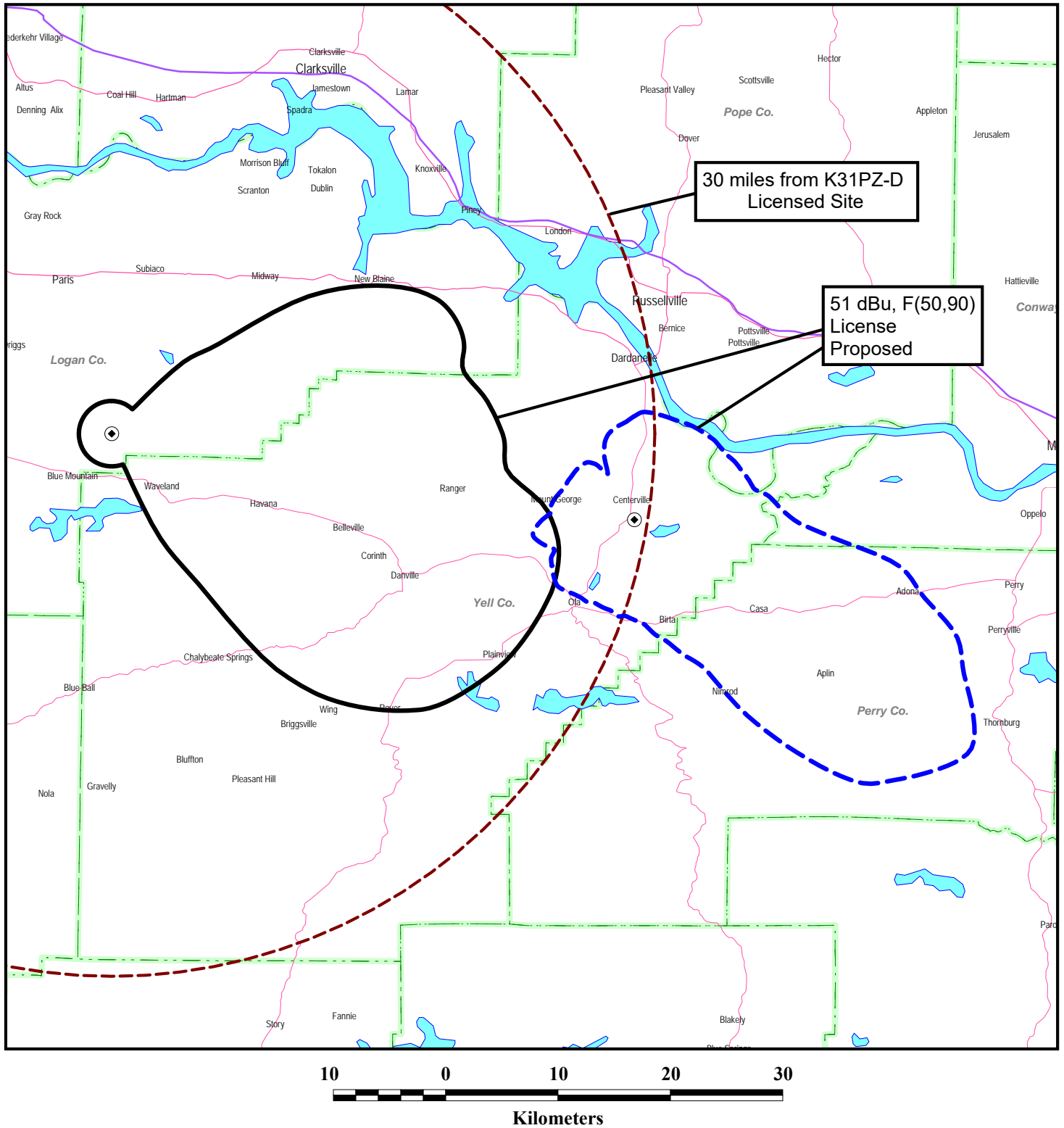
1. It is proposed to relocate K31PZ-D and modify its facilities. Specifically, operation is proposed on current channel 31 from ASRN 1243667 with a directional antenna (DA) maximum effective radiated power (ERP) of 2.0 kW using a Scala model PR-TV, horizontally polarized directional antenna with a main lobe orientation of 125 degrees true. The antenna radiation center height will be 254.1 m AMSL. No other changes are proposed.

2. Figure 1 demonstrates that there is overlap of the licensed and proposed 51 dBu, f(50,90) protected contours as required by Section 73.3572(a)(2)(ii) for minor change applications. Furthermore, the site move will be less than the 30 miles limit as also indicated on Figure 1.

3. Interference Compliance: As indicated in the attached *TVStudy* analysis summary, K31PZ-D's proposed channel 31 operation meets the FCC's interference protection requirements with respect to all protected facilities. A cell size of 1.0 km and a profile resolution of 1.0 km points/km were utilized for the *TVStudy* analysis.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 67 meters above ground level. The total DTV ERP is 2.0 kW (horizontal polarization). A worst-case vertical plane relative field value of 1.0 is presumed for the antenna's downward radiation (-60° to -90° elevation). The calculated power density at a point 2 meters above ground level is 15.81 uW/cm² which is 4.1% of the FCC's recommended limit of 383.3 uW/cm² for channel 31 for an uncontrolled environment. Therefore, the proposal meets the 5% exclusion limit at ground level and it complies with the FCC's exposure limits.

Figure 1



DISTANCE AND CONTOUR OVERLAP COMPLIANCE MAP

STATION K31PZ-D
CLARKSVILLE, ARKANSAS
CH 31 2 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TVSTUDY ANALYSIS FOR PROPOSED K31PZ-D CH 31, CLARKSVILLE, ARKANSAS

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: k31pz040, Model: Longley-Rice

Study build station data: LMS TV 2023-09-01

Proposal: K31PZ040 D31 LD APP CLARKSVILLE, AR
File number: k31pz040
Facility ID: 185934
Station data: User record
Record ID: 5207
Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KKAF-LD	D30	LD	LIC	FAYETTEVILLE, AR	BLANK0000062918	148.8 km
Yes	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLANK0000149904	69.8
No	KTEQ-LP	D31-	LD	CP	FULTON, AR	BLANK0000151968	175.3
No	KTEQ-LP	D31-	LD	LIC	FULTON, AR	BLANK0000179371	175.3
No	KWBM	D31	DT	CP	HARRISON, AR	BLANK0000036086	179.0
No	KWBM	D31	DT	LIC	HARRISON, AR	BLCDT20091201ASC	179.0
No	KPBI-CD	D31	DC	LIC	WINSLOW, AR	BLANK0000055649	148.8
No	KPJO-LD	D31	LD	LIC	PITTSBURG, KS	BLANK0000080011	270.0
No	KLAX-TV	D31	DT	LIC	ALEXANDRIA, LA	BLCDT20090622AGN	396.7
No	K31HO-D	D31	LD	LIC	SHREVEPORT, LA	BLDTL20120831AAD	279.3
No	K31PQ-D	D31	LD	CP	CAPE GIRARDEAU, MO	BLANK0000195837	369.5
No	K31PQ-D	D31	LD	LIC	CAPE GIRARDEAU, MO	BLANK0000198108	369.5
No	KCWE	D31	DT	LIC	KANSAS CITY, MO	BLANK0000153381	459.1
No	KDNL-TV	D31	DT	LIC	ST. LOUIS, MO	BLANK0000158069	462.1
No	KOET	D31	DT	LIC	EUFULA, OK	BLEDT20060601BJT	197.8
No	KOHC-CD	D31	DC	LIC	OKLAHOMA CITY, OK	BLANK0000071619	390.0
No	WLMT	D31	DT	CP	MEMPHIS, TN	BLANK0000217085	308.4
No	WLMT	D31	DT	LIC	MEMPHIS, TN	BLCDT20050427ABN	308.4
No	KAZD	D31	DT	LIC	LAKE DALLAS, TX	BLANK0000125085	448.2
No	K31PR-D	D31	LD	LIC	TYLER, TX	BLANK0000153806	341.7
No	KWNL-CD	D32	DC	LIC	BENTONVILLE, AR	BLANK0000055355	148.8
Yes	KARK-TV	D32	DT	LIC	LITTLE ROCK, AR	BLANK0000149977	69.1
No	KPXJ	D32	DT	LIC	MINDEN, LA	BLANK0000192991	277.2
No	KRSU-TV	D32	DT	LIC	CLAREMORE, OK	BLANK0000067907	263.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31
Mask: Stringent
Latitude: 35 5 48.20 N (NAD83)
Longitude: 93 9 56.70 W
Height AMSL: 254.1 m
HAAT: 0.0 m
Peak ERP: 2.00 kW
Antenna: SCA-PR-TV (ID 100024) 125.0 deg
Elev Pattn: Generic

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.004 kW	149.1 m	9.6 km
45.0	0.005	156.2	10.4
90.0	0.033	130.2	15.3
135.0	1.31	126.6	33.4
180.0	0.006	106.1	9.2
225.0	0.004	127.9	9.1
270.0	0.002	147.8	8.5
315.0	0.001	126.1	6.9

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 134 m

Distance to Canadian border: 1155.0 km

Distance to Mexican border: 967.9 km

TVSTUDY ANALYSIS FOR PROPOSED K31PZ-D

CH 31, CLARKSVILLE, ARKANSAS

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 97.6 degrees Distance: 785.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 301.3 degrees Distance: 1198.1 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000149904 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLANK0000149904	
Undesireds:	K31PZ040	D31	LD	APP	CLARKSVILLE, AR	k31pz040	69.8 km
	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	347.5
	WMC-TV	D30	DT	CP	MEMPHIS, TN	BLANK0000207177	240.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
33260.3		1,171,975		32185.7 1,153,299		31858.1 1,145,216	0.28 0.05
Undesired		Total IX		Unique IX, before		Unique IX, after	
K31PZ040 D31 LD APP		93.9		648		90.9 622	
WLBT D30 DT LIC		2.0		7		2.0 7	
WMC-TV D30 DT CP		234.8		7,454		231.8 7,428	

Interference to BLANK0000149904 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLANK0000149904	
Undesireds:	K31PZ040	D31	LD	APP	CLARKSVILLE, AR	k31pz040	69.8 km
	WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	347.5
	WMC-TV	D30	DT	BL	MEMPHIS, TN	DTVBL19184	240.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
33260.3		1,171,975		32185.7 1,153,299		31862.0 1,145,244	0.28 0.05
Undesired		Total IX		Unique IX, before		Unique IX, after	
K31PZ040 D31 LD APP		93.9		648		90.9 622	
WLBT D30 DT LIC		2.0		7		2.0 7	
WMC-TV D30 DT BL		230.8		7,426		227.8 7,400	

Interference to BLANK0000149977 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KARK-TV	D32	DT	LIC	LITTLE ROCK, AR	BLANK0000149977	
Undesireds:	K31PZ040	D31	LD	APP	CLARKSVILLE, AR	k31pz040	69.1 km
	KPXJ	D32	DT	LIC	MINDEN, LA	BLANK0000192991	269.7
	KFVS-TV	D32	DT	CP	CAPE GIRARDEAU, MO	BLANK0000150355	397.3
	WABG-TV	D32	DT	LIC	GREENWOOD, MS	BLCDT20051024ABR	240.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39666.6		1,212,186		37870.7 1,195,864		36904.0 1,189,646	0.14 0.03
Undesired		Total IX		Unique IX, before		Unique IX, after	
K31PZ040 D31 LD APP		51.9		300		51.9 300	
KPXJ D32 DT LIC		757.3		4,322		668.4 3,941	
KFVS-TV D32 DT CP		6.9		209		5.0 13	
WABG-TV D32 DT LIC		241.3		1,964		150.5 1,387	

Interference to BLANK0000149977 LIC scenario 2

TVSTUDY ANALYSIS FOR PROPOSED K31PZ-D CH 31, CLARKSVILLE, ARKANSAS

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	KARK-TV	D32	DT	LIC	LITTLE ROCK, AR	BLANK0000149977			
Undesireds:	K31PZ040	D31	LD	APP	CLARKSVILLE, AR	k31pz040	69.1 km		
	KPXJ	D32	DT	LIC	MINDEN, LA	BLANK0000192991	269.7		
	KFVS-TV	D32	DT	BL	CAPE GIRARDEAU, MO	DTVBL592	397.3		
	WABG-TV	D32	DT	LIC	GREENWOOD, MS	BLCDT20051024ABR	240.1		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
39666.6	1,212,186	37870.7	1,195,864	36956.0	1,189,946	36904.0	1,189,646	0.14	0.03
Undesired				Total IX		Unique IX, before		Unique IX, after	
K31PZ040	D31	LD	APP	51.9	300	51.9	300		
KPXJ	D32	DT	LIC	757.3	4,322	668.4	3,941	668.4	3,941
KFVS-TV	D32	DT	BL	6.9	209	5.0	13	5.0	13
WABG-TV	D32	DT	LIC	241.3	1,964	150.5	1,387	150.5	1,387

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired:	K31PZ040	D31	LD	APP	CLARKSVILLE, AR	k31pz040				
Undesireds:	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLANK0000149904	69.8 km			
	KTEQ-LP	D31-	LD	CP	FULTON, AR	BLANK0000151968	175.3			
	KWBM	D31	DT	CP	HARRISON, AR	BLANK0000036086	179.0			
	KOET	D31	DT	LIC	EUFAULA, OK	BLEDT20060601BJT	197.8			
	WLMT	D31	DT	CP	MEMPHIS, TN	BLANK0000217085	308.4			
	KARK-TV	D32	DT	LIC	LITTLE ROCK, AR	BLANK0000149977	69.1			
Service area		Terrain-limited			IX-free	Percent IX				
716.4	4,510	534.5	3,637		494.4	3,608	7.48 0.80			
Undesired				Total	IX	Unique	IX	Prcnt	Unique	IX
KLRT-TV	D30	DT	LIC	5.0	0	0.0	0	0.00	0.00	
KWBM	D31	DT	CP	6.0	0	1.0	0	0.19	0.00	
KOET	D31	DT	LIC	33.0	29	22.0	29	4.12	0.80	
KARK-TV	D32	DT	LIC	14.0	0	3.0	0	0.56	0.00	

Interference to proposal scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	K31PZ040	D31	LD	APP	CLARKSVILLE, AR	k31pz040	
Undesireds:	KLRT-TV	D30	DT	LIC	LITTLE ROCK, AR	BLANK0000149904	69.8 km
	KTEQ-LP	D31-	LD	CP	FULTON, AR	BLANK0000151968	175.3
	KWBM	D31	DT	LIC	HARRISON, AR	BLCDT20091201ASC	179.0
	KOET	D31	DT	LIC	EUFAULA, OK	BLEDT20060601BJT	197.8
	WLMT	D31	DT	CP	MEMPHIS, TN	BLANK0000217085	308.4
	KARK-TV	D32	DT	LIC	LITTLE ROCK, AR	BLANK0000149977	69.1
Service area		Terrain-limited			IX-free	Percent IX	
716.4	4,510	534.5	3,637		495.4	3,608	7.30 0.80
Undesired				Total IX	Unique IX	Prcnt Unique IX	
KLRT-TV	D30 DT LIC	5.0	0	0.0	0	0.00	0.00
KWBM	D31 DT LIC	1.0	0	0.0	0	0.00	0.00
KOET	D31 DT LIC	33.0	29	24.0	29	4.49	0.80
KARK-TV	D32 DT LIC	14.0	0	3.0	0	0.56	0.00